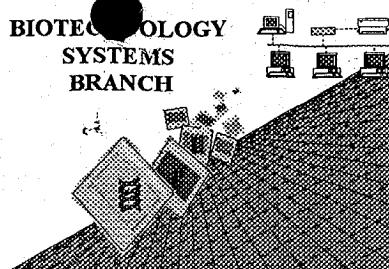


RAW SEQUENCE LISTING **ERROR REPORT**

BIOTECHNOLOGY
SYSTEMS
BRANCH



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/713,616

Source: OIPK

Date Processed by STIC: 6/26/2001

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE **CHECKER VERSION 3.0 PROGRAM**, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of-the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 – 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address:

<http://www.uspto.gov/web/offices/pac/checker>

Raw Sequence Listing Error Summary

ERROR DETECTED SUGGESTED CORRECTION

SERIAL NUMBER: 09/713616

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1 Wrapped Nucleics The number/text at the end of each line "wrapped" down to the next line. This may occur if your file
 Wrapped Aminos was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will
 prevent "wrapping."

- 2 Invalid Line Length The rules require that a line not exceed 72 characters in length. This includes white spaces.

- 3 Misaligned Amino The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers;
 Numbering use space characters, instead.

- 4 Non-ASCII The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please
 ensure your subsequent submission is saved in ASCII text.

- 5 Variable Length Sequence(s) contain n's or Xaa's representing more than one residue. Per Sequence Rules,
 each n or Xaa can only represent a single residue. Please present the maximum number of each
 residue having variable length and indicate in the <220>-<223> section that some may be missing.

- 6 PatentIn 2.0 A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid
 "bug" sequences(s) . Normally, PatentIn would automatically generate this section from the
 previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to
 the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for
 Artificial or Unknown sequences.

- 7 Skipped Sequences Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence:
 (OLD RULES) (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
 (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
 This sequence is intentionally skipped

 Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.

- 8 Skipped Sequences Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence.
 (NEW RULES) <210> sequence id number
 <400> sequence id number
 000

- 9 Use of n's or Xaa's Use of n's and/or Xaa's have been detected in the Sequence Listing.
 (NEW RULES) Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
 In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

- 10 Invalid <213> Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or
 Response scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or
 is Artificial Sequence *do not combine responses*

- 11 Use of <220> Sequence(s) missing the <220> "Feature" and associated numeric identifiers and responses.
 Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or
 "Unknown." Please explain source of genetic material in <220> to <223> section.
 (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)

- 12 PatentIn 2.0 Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file,
 "bug" resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence
 listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.

OIPE

RAW SEQUENCE LISTING

DATE: 06/26/2001

PATENT APPLICATION: US/09/713,616

TIME: 07:36:18

Input Set : A:\06501-069001.txt

Output Set: N:\CRF3\06262001\I713616.raw

Does Not Comply
Corrected Diskette Needed*pp 1-5*

3 <110> APPLICANT: Hidetoshi, Inoko
 4 Gen, Tamiya
 5 Yasunari, Matsuzaka
 7 <120> TITLE OF INVENTION: NOVEL POLYMORPHIC MICROSATELLITE MARKERS IN THE HUMAN MHC
 CLASS II REGION
 9 <130> FILE REFERENCE: 06501-069001
 11 <140> CURRENT APPLICATION NUMBER: US/09/713,616
 11 <141> CURRENT FILING DATE: 2000-11-15
 11 <160> NUMBER OF SEQ ID NOS: 46
 13 <170> SOFTWARE: PatentIn version 3.0
 15 <210> SEQ ID NO: 1
 16 <211> LENGTH: 19
 17 <212> TYPE: DNA
 C--> 18 <213> ORGANISM: Artificial/Unknown *see item 10 on Ena Summary sheet*
 20 <220> FEATURE:
 21 <221> NAME/KEY: misc_feature
 22 <222> LOCATION: (1)..(19)
 23 <223> OTHER INFORMATION: artificially synthesized primer sequence
 25 <400> SEQUENCE: 1
 26 gggattgatt ccaaaaccc 19
 28 <210> SEQ ID NO: 2
 29 <211> LENGTH: 20
 30 <212> TYPE: DNA
 C--> 31 <213> ORGANISM: Artificial/Unknown
 33 <220> FEATURE:
 34 <221> NAME/KEY: misc_feature
 35 <222> LOCATION: (1)..(20)
 36 <223> OTHER INFORMATION: artificially synthesized primer sequence
 38 <400> SEQUENCE: 2
 39 gagatcaaga ccactctggc 20
 41 <210> SEQ ID NO: 3
 42 <211> LENGTH: 19
 43 <212> TYPE: DNA
 C--> 44 <213> ORGANISM: Artificial/Unknown
 46 <220> FEATURE:
 47 <221> NAME/KEY: misc_feature
 48 <222> LOCATION: (1)..(19)
 49 <223> OTHER INFORMATION: artificially synthesized primer sequence
 51 <400> SEQUENCE: 3
 52 tgtttgccag gaactgtgc 19
 54 <210> SEQ ID NO: 4
 55 <211> LENGTH: 19
 56 <212> TYPE: DNA
 C--> 57 <213> ORGANISM: Artificial/Unknown
 59 <220> FEATURE:
 60 <221> NAME/KEY: misc_feature
 61 <222> LOCATION: (1)..(19)
 62 <223> OTHER INFORMATION: artificially synthesized primer sequence

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/713,616

DATE: 06/26/2001
TIME: 07:36:18

Input Set : A:\06501-069001.txt
Output Set: N:\CRF3\06262001\I713616.raw

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64 <400> SEQUENCE: 4
65 actatgcagc atccaaggc 19
67 <210> SEQ ID NO: 5
68 <211> LENGTH: 21
69 <212> TYPE: DNA
C--> 70 <213> ORGANISM: Artificial/Unknown
72 <220> FEATURE:
73 <221> NAME/KEY: misc_feature
74 <222> LOCATION: (1)..(21)
75 <223> OTHER INFORMATION: artificially synthesized primer sequence
77 <400> SEQUENCE: 5
78 ttgcaaatac gatgtcgaag g 21
80 <210> SEQ ID NO: 6
81 <211> LENGTH: 22
82 <212> TYPE: DNA
C--> 83 <213> ORGANISM: Artificial/Unknown
85 <220> FEATURE:
86 <221> NAME/KEY: misc_feature
87 <222> LOCATION: (1)..(22)
88 <223> OTHER INFORMATION: artificially synthesized primer sequence
90 <400> SEQUENCE: 6
91 aaacctccta acctctgtga cc 22
93 <210> SEQ ID NO: 7
94 <211> LENGTH: 22
95 <212> TYPE: DNA
C--> 96 <213> ORGANISM: Artificial/Unknown
98 <220> FEATURE:
99 <221> NAME/KEY: misc_feature
100 <222> LOCATION: (1)..(22)
101 <223> OTHER INFORMATION: artificially synthesized primer sequence
103 <400> SEQUENCE: 7
104 gaggtcagct tcctcaaata gg 22
106 <210> SEQ ID NO: 8
107 <211> LENGTH: 22
108 <212> TYPE: DNA
C--> 109 <213> ORGANISM: Artificial/Unknown
111 <220> FEATURE:
112 <221> NAME/KEY: misc_feature
113 <222> LOCATION: (1)..(22)
114 <223> OTHER INFORMATION: artificially synthesized primer sequence
116 <400> SEQUENCE: 8
117 cccacacctg taatottagt gc 22
119 <210> SEQ ID NO: 9
120 <211> LENGTH: 24
121 <212> TYPE: DNA
C--> 122 <213> ORGANISM: Artificial/Unknown
124 <220> FEATURE:
125 <221> NAME/KEY: misc_feature
126 <222> LOCATION: (1)..(24)
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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/713,616

DATE: 06/26/2001

TIME: 07:36:18

Input Set : A:\06501-069001.txt

Output Set: N:\CRF3\06262001\I713616.raw

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127 <223> OTHER INFORMATION: artificially synthesized primer sequence
129 <400> SEQUENCE: 9
130 ccactcccat cttatagttg tgtc
132 <210> SEQ ID NO: 10
133 <211> LENGTH: 18
134 <212> TYPE: DNA
C--> 135 <213> ORGANISM: Artificial/Unknown
137 <220> FEATURE:
138 <221> NAME/KEY: misc_feature
139 <222> LOCATION: (1)..(18)
140 <223> OTHER INFORMATION: artificially synthesized primer sequence
142 <400> SEQUENCE: 10
143 aattccattc gccagag
145 <210> SEQ ID NO: 11
146 <211> LENGTH: 22
147 <212> TYPE: DNA
C--> 148 <213> ORGANISM: Artificial/Unknown
150 <220> FEATURE:
151 <221> NAME/KEY: misc_feature
152 <222> LOCATION: (1)..(22)
153 <223> OTHER INFORMATION: artificially synthesized primer sequence
155 <400> SEQUENCE: 11
156 ccaatgtttg atagcagact gg
158 <210> SEQ ID NO: 12
159 <211> LENGTH: 25
160 <212> TYPE: DNA
C--> 161 <213> ORGANISM: Artificial/Unknown
163 <220> FEATURE:
164 <221> NAME/KEY: misc_feature
165 <222> LOCATION: (1)..(25)
166 <223> OTHER INFORMATION: artificially synthesized primer sequence
168 <400> SEQUENCE: 12
169 cctagagatt cctccgtatt agttc
171 <210> SEQ ID NO: 13
172 <211> LENGTH: 22
173 <212> TYPE: DNA
C--> 174 <213> ORGANISM: Artificial/Unknown
176 <220> FEATURE:
177 <221> NAME/KEY: misc_feature
178 <222> LOCATION: (1)..(22)
179 <223> OTHER INFORMATION: artificially synthesized primer sequence
181 <400> SEQUENCE: 13
182 ggagacacat tcaaaccata gc
184 <210> SEQ ID NO: 14
185 <211> LENGTH: 24
186 <212> TYPE: DNA
C--> 187 <213> ORGANISM: Artificial/Unknown
189 <220> FEATURE:
190 <221> NAME/KEY: misc_feature

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RAW SEQUENCE LISTING

DATE: 06/26/2001

PATENT APPLICATION: US/09/713,616

TIME: 07:36:18

Input Set : A:\06501-069001.txt

Output Set: N:\CRF3\06262001\I713616.raw

191 <222> LOCATION: (1)..(24)
192 <223> OTHER INFORMATION: artificially synthesized primer sequence
194 <400> SEQUENCE: 14
195 caattggtga catacatcaa cttg 24
197 <210> SEQ ID NO: 15
198 <211> LENGTH: 21
199 <212> TYPE: DNA
C--> 200 <213> ORGANISM: Artificial/Unknown
202 <220> FEATURE:
203 <221> NAME/KEY: misc_feature
204 <222> LOCATION: (1)..(21)
205 <223> OTHER INFORMATION: artificially synthesized primer sequence
207 <400> SEQUENCE: 15
208 ttgcatacac tctgaagcag c 21
210 <210> SEQ ID NO: 16
211 <211> LENGTH: 21
212 <212> TYPE: DNA
C--> 213 <213> ORGANISM: Artificial/Unknown
215 <220> FEATURE:
216 <221> NAME/KEY: misc_feature
217 <222> LOCATION: (1)..(21)
218 <223> OTHER INFORMATION: artificially synthesized primer sequence
220 <400> SEQUENCE: 16
221 tccctgtgga tgtcaagaat c 21
223 <210> SEQ ID NO: 17
224 <211> LENGTH: 19
225 <212> TYPE: DNA
C--> 226 <213> ORGANISM: Artificial/Unknown
228 <220> FEATURE:
229 <221> NAME/KEY: misc_feature
230 <222> LOCATION: (1)..(19)
231 <223> OTHER INFORMATION: artificially synthesized primer sequence
233 <400> SEQUENCE: 17
234 gaatggatgc tgcattgagg 19
236 <210> SEQ ID NO: 18
237 <211> LENGTH: 22
238 <212> TYPE: DNA
C--> 239 <213> ORGANISM: Artificial/Unknown
241 <220> FEATURE:
242 <221> NAME/KEY: misc_feature
243 <222> LOCATION: (1)..(22)
244 <223> OTHER INFORMATION: artificially synthesized primer sequence
246 <400> SEQUENCE: 18
247 aagtgttgaa ggaactccct gc 22
249 <210> SEQ ID NO: 19
250 <211> LENGTH: 20
251 <212> TYPE: DNA
C--> 252 <213> ORGANISM: Artificial/Unknown
254 <220> FEATURE:

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/713,616

DATE: 06/26/2001

TIME: 07:36:18

Input Set : A:\06501-069001.txt

Output Set: N:\CRF3\06262001\I713616.raw

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255 <221> NAME/KEY: misc_feature
256 <222> LOCATION: (1)..(20)
257 <223> OTHER INFORMATION: artificially synthesized primer sequence
259 <400> SEQUENCE: 19
260 tcactcatgg ttgcttttcc 20
262 <210> SEQ ID NO: 20
263 <211> LENGTH: 22
264 <212> TYPE: DNA
C--> 265 <213> ORGANISM: Artificial/Unknown
267 <220> FEATURE:
268 <221> NAME/KEY: misc_feature
269 <222> LOCATION: (1)..(22)
270 <223> OTHER INFORMATION: artificially synthesized primer sequence
272 <400> SEQUENCE: 20
273 gaatgatagg agtccattgt gg 22
275 <210> SEQ ID NO: 21
276 <211> LENGTH: 21
277 <212> TYPE: DNA
C--> 278 <213> ORGANISM: Artificial/Unknown
280 <220> FEATURE:
281 <221> NAME/KEY: misc_feature
282 <222> LOCATION: (1)..(21)
283 <223> OTHER INFORMATION: artificially synthesized primer sequence
285 <400> SEQUENCE: 21
286 ttgtggtttc agctactcag g 21
288 <210> SEQ ID NO: 22
289 <211> LENGTH: 22
290 <212> TYPE: DNA
C--> 291 <213> ORGANISM: Artificial/Unknown
293 <220> FEATURE:
294 <221> NAME/KEY: misc_feature
295 <222> LOCATION: (1)..(22)
296 <223> OTHER INFORMATION: artificially synthesized primer sequence
298 <400> SEQUENCE: 22
299 ttcttttcatt tggcctctac tg 22
301 <210> SEQ ID NO: 23
302 <211> LENGTH: 22
303 <212> TYPE: DNA
C--> 304 <213> ORGANISM: Artificial/Unknown
306 <220> FEATURE:
307 <221> NAME/KEY: misc_feature
308 <222> LOCATION: (1)..(22)
309 <223> OTHER INFORMATION: artificially synthesized primer sequence
311 <400> SEQUENCE: 23
312 tacattatca ttaccggaat gc 22
314 <210> SEQ ID NO: 24
315 <211> LENGTH: 20
316 <212> TYPE: DNA
C--> 317 <213> ORGANISM: Artificial/Unknown

```

The types of errors shown exist throughout the Sequence Listing. Please check subsequent sequences for similar errors.

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/713,616

DATE: 06/26/2001

TIME: 07:36:19

Input Set : A:\06501-069001.txt

Output Set: N:\CRF3\06262001\I713616.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application No
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:18 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:1
L:31 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:2
L:44 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:3
L:57 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:4
L:70 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:5
L:83 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:6
L:96 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:7
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L:135 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:10
L:148 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:11
L:161 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:12
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L:552 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:42